

INSTRUMENT APPROACH PROCEDURE CHARTS

## IFR TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

Civil Airports and Selected Military Airports

ALL USERS: Airports that have Departure Procedures (DPs) designed specifically to assist pilots in avoiding obstacles during the climb to the minimum enroute altitude, and/or airports that have civil IFR takeoff minimums other than standard, are listed below. Takeoff Minimums and Departure Procedures apply to all runways unless otherwise specified. Altitudes, unless otherwise indicated, are minimum altitudes in MSL.

DPs specifically designed for obstacle avoidance are referred to as Obstacle Departure Procedures (ODPs) and are textually described below, or published separately as a graphic procedure. If the ODP is published as a graphic procedure, its name will be listed below, and it can be found in either this volume (civil), or the applicable military volume, as appropriate. Users will recognize graphic obstacle DPs by the term "(OBSTACLE)" included in the procedure title; e.g., TETON TWO (OBSTACLE). If not specifically assigned an ODP, SID, or radar vector as part of an IFR clearance, an ODP may be required to be flown for obstacle clearance, even though not specifically stated in the IFR clearance. When doing so in this manner, ATC should be informed when the ODP being used contains a specified route to be flown, restrictions before turning, and/or altitude restrictions.

Some ODPs, which are established solely for obstacle avoidance, require a climb in visual conditions to cross the airport, a fix, or a NAVAID in a specified direction, at or above a specified altitude. These procedures are called Visual Climb Over Airport (VCOA). To ensure safe and efficient operations, the pilot must verbally request approval from ATC to fly the VCOA when requesting their IFR clearance.

At some locations where an ODP has been established, a diverse vector area (DVA) may be created to allow radar vectors to be used in lieu of an ODP. DVA information will state that headings will be as assigned by ATC and climb gradients, when applicable, will be published immediately following the specified departure procedure.

Graphic DPs designed by ATC to standardize traffic flows, ensure aircraft separation and enhance capacity are referred to as "Standard Instrument Departures (SIDs)". SIDs also provide obstacle clearance and are published under the appropriate airport section. ATC clearance must be received prior to flying a SID.

CIVIL USERS NOTE: Title 14 Code of Federal Regulations Part 91 prescribes standard takeoff rules and establishes takeoff minimums for certain operators as follows: (1) Aircraft having two engines or less - one statute mile. (2) Aircraft having more than two engines - one-half statute mile. These standard minima apply in the absence of any different minima listed below.

MILITARY USERS NOTE: Civil (nonstandard) takeoff minima are published below. For military takeoff minima, refer to appropriate service directives.

NAME

TAKEOFF MINIMUMS

#### ANAHUAC, TX

CHAMBERS COUNTY (T00) TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES ORIG 11069 (FAA)

TAKEOFF MINIMUMS: Rwys 17,35, NA-Environmental.

NOTE: Rwy 12, vehicles on roadway beginning 19' from DER, left and right of centerline, up to 15 AGL/34' MSL. Trees beginning 986' from DER, 732' left of centerline, up to 100' AGL/119' MSL. Rwy 30, trees beginning 60' from DER, left and right of centerline, up to 100' AGL/124' MSL. Vehicles on roadway 121' from DER, 512' right of centerline, up to 17' AGL/36' MSL. Tower 2152' from DER, 593' right of centerline 60' AGL/83' MSL.

NAME

TAKEOFF MINIMUMS

#### ANGLETON/LAKE JACKSON, TX

TEXAS GULF COAST RGNL (LBX) TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES AMDT 1 08157 (FAA)

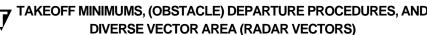
NOTE: Rwy 35, tree 1510' from DER, 721' left of centerline, 48' AGL/68' MSL.

#### BAY CITY, TX

BAY CITY MUNI (BYY) TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES ORIG 11349 (FAA)

NOTE: Rwy 13, trees beginning 51' from DER, left and right of centerline, up to 55' AGL/92' MSL. Poles beginning 635' from DER, 402' left of centerline, 31' AGL/68' MSL. Rwy 31, trees beginning 102' from DER, left and right of centerline, up to 34' AGL/80' MSL.

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**BAYTOWN, TX** 

BAYTOWN (HPY)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG 10210 (FAA)

TAKEOFF MINIMUMS: Rwy 14, 300-1 or std. w/min. climb of 420' per NM to 300.

NOTE: Rwy 14, multiple trees, power poles, and houses beginning at DER, left and right of centerline, up to 60' AGL/89' MSL. Vehicle 187' from DER, 47' right of centerline, 15' AGL/44' MSL. Tower 4066' from DER, 1217' right of centerline, 156' AGL/180' MSL. Rwy 32, vehicle 53' from DER, 23' right of centerline, 15 AGL/49' MSL. Buildings beginning 104' from DER, left and right of centerline, up to 30' AGL/59' MSL. Trees beginning 116' from DER, left and right of centerline, up to 60' AGL/94' MSL.

#### R W J AIRPARK (54T) TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1 14149 (FAA)

TAKEOFF MINIMUMS: Rwys 14, 32, Standard-NA at

night. NOTE: Rwy 8, trees beginning 21' from DER, 152' left of centerline, up to 100' AGL/129' MSL. Vehicle on road beginning 100' from DER, crossing centerline, up to 15' AGL/44' MSL. Fence beginning abeam DER, 115' right of centerline, up to 6' AGL/35' MSL. Trees beginning 133' from DER, 333' right of centerline, up to 100' AGL/129' MSL. Buildings beginning 266' from DER, left and right of centerline, up to 30' AGL/59 MSL. Power lines beginning 356' from DER, 460' left of centerline, up to 32' AGL/61' MSL. Pole 663' from DER, 188' right of centerline, 100' AGL/129' MSL. Rwy 14, vehicle on road beginning 10' from DER, crossing centerline, up to 15' AGL/44' MSL. Buildings beginning 35' from DER, left and right of centerline, up to 30' AGL/59' MSL. Trees beginning 30' from DER, crossing centerline, up to 100' AGL/129' MSL. Power lines beginning 341' from DER, crossing centerline, up to 32' AGL/61' MSL. Rwy 26, buildings beginning 47 from DER, 118' right of centerline, up to 30' AGL/64' MSL. Buildings beginning 187' from DER, 85' left of centerline, up to 30' AGL/64' MSL. Power lines beginning 407' from DER, crossing centerline, up to 32' AGL/66' MSL. Vehicle on road beginning 448' from DER, crossing centerline, up to 15' AGL/49' MSL. Trees beginning 619' from DER, left and right of centerline, up to 100' AGL/134' MSL. Quarry equipment 2800' from DER, 193' right of centerline, up to 100' AGL/134' MSL. Rwy 32, vehicle on road beginning 10' from DER, crossing centerline, up to 15' AGL/49' MSL. Fence beginning 30' from DER, crossing centerline, up to 6' AGL/40' MSL. Buildings beginning 29' from DER, 223' left of centerline, up to 30' AGL/64' MSL. Buildings beginning 31' from DER, 146' right of centerline, up to 30' AGL/64' MSL. Power lines beginning 259' from DER, 139' left of centerline, up to 32' AGL/66' MSL. Trees beginning 620' from DER, left and right of centerline, up to 100' AGL/139' MSL.

#### BEAUMONT, TX

BEAUMONT MUNI (BMT) TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES ORIG 09015 (FAA)

TAKEOFF MINIMUMS: Rwys 16,34, NA - Obstacles. NOTE: Rwy 13, multiple trees, poles and buildings beginning 82' from DER, 2' left of centerline, up to 74' AGL/106' MSL. Multiple trees, poles and signs beginning 441' from DER, 22' right of centerline, up to 73' AGL/105' MSL. Vehicle on road 152' from DER, 428' left of centerline, 15' AGL/46' MSL. Train on railroad 545' from DER, 506' right of centerline, 23' AGL/57' MSL. Rwy 31, multiple trees, poles and transmission line towers beginning 81' from DER, 2' left of centerline, up to 64' AGL/94' MSL. Multiple trees, poles, and transmission line towers beginning 241' from DER, 4' right of centerline, up to 56' AGL/88' MSL. Train on railroad 375' from DER, 354' right of centerline, 23' AGL/55' MSL.

#### BEAUMONT/PORT ARTHUR, TX

JACK BROOKS RGNL (BPT) TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES ORIG 09351 (FAA)

NOTE: Rwy 12, multiple trees beginning 1024' from DER, 202' left of centerline, up to 43' AGL/48' MSL. Trees 1676' from DER, 778' right of centerline, 51' AGL/56' MSL. Rwy 16, multiple trees beginning 580' from DER, 519' right of centerline, up to 51' AGL/56' MSL. Rwy 30, trees 1005' from DER, 629' right of centerline, 54' AGL/64' MSL. Multiple trees beginning 1041' from DER, 617' left of centerline, up to 67' AGL/77' MSL. Rwy 34, building 770' from DER, 386' right of centerline, 28' AGL/38' MSL. Multiple trees beginning 1274' from DER, 398' right of centerline, up to 70' AGL/80' MSL. Multiple trees beginning 1288' from DER, 218' left of centerline, up to 72' AGL/82' MSL. Tower 1487' from DER, 398' right of centerline, 60' AGL/75' MSL.

#### BRENHAM, TX

BRENHAM MUNI (11R)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1 10042 (FAA)

NOTE: Rwy 16, trees and poles beginning 45' from DER, 272' right of centerline to 305' left of centerline, up to 89' AGL/299' MSL. Rwy 34, trees beginning 18' from DER, 325' right of centerline to 380' left of centerline, up to 61' AGL/351' MSL.

#### BRYAN, TX

COULTER FIELD (CFD) TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES ORIG 07186 (FAA)

NOTE: Rwy 15, vehicle on road 266' from DER, on centerline, 17' AGL/386' MSL. Multiple trees and poles beginning 169' from DER, 339' right of centerline, up to 20' AGL/389' MSL. Multiple trees and poles beginning 203' from DER, 245' left of centerline, up to 35' AGL/400' MSL. Rwy 33, multiple poles and T-L towers beginning 36' from DER, 207' left of centerline, up to 35' AGL/382' MSL. Trees 508' from DER, 290' right of centerline, 25' AGL/371' MSL

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### CALDWELL, TX

CALDWELL MUNI (RWV)
TAKEOFF MINIMUMS AND (OBSTACLE)
DEPARTURE PROCEDURES

AMDT 1 12264 (FAA)

TAKEOFF MINIMUMS: **Rwy 33**, 300-1 or std. w/min. climb of 778' per NM to 800.

NOTE: Rwy 15, trees beginning 323' from DER, left and right of centerline, up to 40' AGL/399' MSL. Train on tracks 372' from DER, left and right of centerline, up to 23' AGL/382' MSL. Power lines beginning 1896' from DER, left and right of centerline, up to 100' AGL/499' MSL. Rwy 33, trees beginning 5' from DER, left and right of centerline, up to 40' AGL/449' MSL. Power lines beginning 925' from DER, left and right of centerline, up to 50' AGL/499' MSL. Water tank 3624' from DER, 1031' left of centerline 215' AGL/648' MSL.

#### **CENTER, TX**

CENTER MUNI (F17)

TAKEOFF MINIMUMS AND (OBSTACLE)
DEPARTURE PROCEDURES

ORIG 10210 (FAA)

DEPARTURE PROCEDURE: **Rwy 17**, climb heading 167° to 1000 before turning right.

NOTE: Rwy 17, numerous trees beginning 326' from DER, 432' right and left of centerline, up to 100' AGL/414' MSL. Vehicle on road 234' from DER, 530' left of centerline, up to 15' AGL/314' MSL. Rwy 35, numerous trees beginning 1724' from DER, 388' left and right of centerline, up to 100' AGL/459' MSL. Vehicle on road 1091' from DER, 742' right of centerline, up to 15' AGL/354' MSL.

#### CLEVELAND, TX

CLEVELAND MUNI (6R3) TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1 11265 (FAA)

DEPARTURE PROCEDURE: Rwy 16, climb heading 157° to 1400 before turning right. Rwy 34, climb heading 312° to 2000 before proceeding on course. NOTE: Rwy 16, trees beginning abeam DER, right and left of centerline, up to 100' AGL/239' MSL. Rwy 34, trees beginning 120' from DER, 243' left of centerline, up to 100' AGL/259' MSL. Trees and poles beginning 225' from DER, 363' right of centerline, up to 100' AGL/220' MSL. Vehicles on road 738' from DER, right and left of centerline, up to 19' AGL/169' MSL.

#### COLLEGE STATION, TX

EASTERWOOD FIELD (CLL)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 3 11097 (FAA)

TAKEOFF MINIMUMŚ: **Rwy 4,** 300-1% or std. w/ min. climb of 243' per NM to 700.

DEPARTURE PROCEDURE: **Rwy 34**, climb heading 343° to 1000 before turning right.

NOTE: Rwy 4, trees beginning 247' from DER, 103' right of centerline, up to 75' AGL/384' MSL. Trees beginning 765' from DER, 120' left of centerline, up to 41' AGL/341' MSL. Rwy 10, multiple trees beginning 24' from DER, 251' right of centerline, up to 40' AGL/350' MSL. Multiple trees and OL on elevator beginning 498' from DER, 100' left of centerline, up to 66' AGL/366' MSL. Rwy 16, tree 969' from DER, 705' left of centerline, up to 75' AGL/374' MSL. Rwy 22, trees beginning 108' from DER, 83' right of centerline, up to 75' AGL/394' MSL. Trees beginning 124' from DER, 10' left of centerline, up to 75' AGL/384' MSL. Rwy 28, multiple trees beginning 474' from DER, 86' right of centerline, up to 75' AGL/404' MSL. Multiple trees and light poles beginning 187' from DER, 283' left of centerline, up to 75' AGL/404' MSL. Rwy 34, trees beginning 775' from DER, 474' right of centerline, up to 75' AGL/394' MSL. Vehicles on roads beginning 748' from DER, 97' right of centerline, up to 17' AGL/346' MSL. Trees and terrain beginning 136' from DER, 235' left of centerline, up to 50' AGL/380' MSL. Vehicles on road 1112' from DER, 175' left of centerline, up to 15' AGL/354' MSL.

#### CROCKETT, TX

HOUSTON COUNTY (DKR)
TAKEOFF MINIMUMS AND (OBSTACLE)
DEPARTURE PROCEDURES
ORIG 11349 (FAA)

TAKEOFF MINIMUMS: **Rwy 2**, 400-2 or std. w/min. climb of 280' per NM to 800. **Rwy 20**, 300-1½ or std. w/min. climb of 459'per NM to 700.

NOTE: Rwy 2, multiple trees beginning 57' from DER, 61' right of centerline, up to 50' AGL/399' MSL. Multiple trees and terrain beginning 27' from DER, 109' left of centerline, up to 50' AGL/409' MSL. Tower 1.5 NM from DER, 2864' left of centerline 233' AGL/623' MSL. Rwy 20, multiple towers beginning 4567' from DER, 1025' right of centerline, up to 200' AGL/529' MSL.

#### **EAGLE LAKE, TX**

EAGLE LAKE (ELA)
TAKEOFF MINIMUMS AND (OBSTACLE)
DEPARTURE PROCEDURES
AMDT 1 04330 (FAA)

TAKEOFF MINIMUMS: **Rwy 17**, 200-1, or std. with a min. climb of 420' per NM to 500.

NOTE: Rwy 17, tower 3068' from DER, 793' left of centerline, 192' AGL/317' MSL.

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#### EDNA, TX

JACKSON COUNTY (26R) TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG 15344 (FAA)

NOTE: Rwy 15, trees beginning 758' from DER, left and right of centerline, up to 20' AGL/84' MSL. Rwy 33, vehicle on road beginning 292' from DER, 576' left of centerline, up to 15' AGL/79' MSL. Power poles beginning 783' from DER, 397' left of centerline, 40' AGL/104' MSL. Power pole 1169' from DER, 506' right of centerline, 40' AGL/104' MSL.

#### **GALVESTON, TX**

SCHOLES INTL AT GALVESTON (GLS) TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES AMDT 5 13234 (FAA)

DEPARTURE PROCEDURE: Rwy 32, climb heading 318° to 800 before turning left.

NOTE: Rwy 14, building 2614' from DER, 376' right of centerline, 76' AGL/81' MSL. Rwy 18, buildings beginning 2560' from DER, 284' left of centerline, up to 121' AGL/178' MSL. T-L tower 636' from DER, 551 right of centerline, 55' AGL/60' MSL. Trees and poles beginning 50' from DER, 75' right of centerline, up to 60' AGL/65' MSL. Rwy 32, crane 4434' from DER, 1081' left of centerline, 131' AGL/131' MSL. Rwy 36, bush 419' from DER, 577' left of centerline, 12' AGL/17' MSL. Tree 526' from DER, 371' left of centerline, 14' AGL/19' MSL. Trees beginning 713' from DER, 383' right of centerline, up to 27' AGL/32' MSL.

#### GIDDINGS, TX

GIDDINGS-LEE COUNTY (GYB) TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG 10210 (FAA)

NOTE: Rwy 17, numerous trees beginning 720' from DER, 58' right of centerline, up to 50' AGL/479' MSL. Numerous trees beginning 754' from DER, 340' left of centerline, up to 50' AGL/479' MSL. Rwy 35, numerous trees beginning 613' from DER, 272' right of centerline, up to 50' AGL/539' MSL. Numerous trees beginning 558' from DER, 265' left of centerline, up to 50' AGL/559' MSL. Vehicle on road 516' from DER, 246' left of centerline, 15' AGL/514' MSL.

#### HOUSTON, TX

DAVID WAYNE HOOKS MEMORIAL (DWH) TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES AMDT 3 08157 (FAA)

TAKEOFF MINIMUMŚ: Rwys 17L, 35R, NA-

Environmental. Waterways 17, 35, NA - air traffic. NOTE: Rwy 17R, multiple trees beginning 708' from DER, 68' left of centerline, up to 71' AGL/220' MSL. Multiple hangars beginning 433' from DER, 515' left of centerline. up to 37' AGL/182' MSL. DME antenna 653' from DER, 256' left of centerline, 13' AGL/162' MSL. Multiple trees and pole beginning 85' from DER, 294' right of centerline, up to 45' AGL/189' MSL. Rwy 35L, multiple trees and poles beginning 144' from DER, 32' left of centerline, up to 79' AGL/238' MSL. Multiple hangars and buildings beginning 85' from DER, 9' left of centerline, up to 53' AGL/202' MSL. Multiple trees, towers and pole beginning 100' from DER, 124' right of centerline, up to 93' AGL/247' MSL. Vehicle and road 315' from DER, on centerline 15' AGL/166' MSL. Building 894' from DER, 231' right of centerline, 23' AGL/173' MSL.

#### **ELLINGTON (EFD)** TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES AMDT 3 13010 (FAA)

TAKEOFF MINIMUMS: Rwy 22, 200-11/4 or std w/min. climb of 214' per NM to 300, or alternatively with standard takeoff minimums and a normal 200' per NM climb gradient, takeoff must occur no later than 1400' prior to DER.

NOTE: Rwy 4, tree 1526' from DER, 737' right of centerline, 39' AGL/69' MSL. Rwy 17R, pole 1488' from DER, 817' right of centerline, 40' AGL/74' MSL. Rwy 22, obstruction light on GS and equipment 321' from DER, 544' left of centerline, 39' AGL/68' MSL. Sign 213' from DER, 472' right of centerline, 6' AGL/32' MSL. Antenna on building 1998' from DER, 598' right of centerline, 54' AGL/83' MSL. Obstruction light on communication equipment and antenna 1626' from DER, 837' right of centerline, 88' AGL/114' MSL. Obstruction light on water tower and tank 6114' from DER, 1635' right of centerline, 159' AGL/192' MSL. Rwy 35L, trees beginning 1119' from DER, 679' right of centerline, up to 37' AGL/77' MSL. Crane 2353' from DER, 1024' left of centerline, 58' AGL/97' MSL. Rwy 35R, tree 1597' from DER, 32' left of centerline, 50' AGL/80' MSL. Tank 2639' from DER, 1157' right of centerline, 77' AGL/109' MSL.

### GEORGE BUSH INTERCONTINENTAL/ HOUSTON (IAH)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES AMDT 2 08157 (FAA)

NOTE: Rwy 8L, tree 2866' from DER, 921' left of centerline, 107' AGL/201' MSL. Multiple trees beginning 2750' from DER, 106' right of centerline, up to 80' AGL/174' MSL. Rwy 15L, multiple trees 2638' from DER, 758' right of centerline, up to 76' AGL/160' MSL. Rwy 15R, tower 1431' from DER, 591' left of centerline, 48' AGL/133' MSL. Antenna on glideslope 1469' from DER, 621' left of centerline, 49' AGL/133' MSL. Rwy 26R, pole 950' from DER, 660' right of centerline, 40' AGL/129' MSL. Rwy 33R, tree 2868' from DER, 1027' right of centerline, 73' AGL/172' MSL.

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PEARLAND RGNL (LVJ)
TAKEOFF MINIMUMS AND (OBSTACLE)
DEPARTURE PROCEDURES

AMDT 4 14093 (FAA)

DEPARTURE PROCEDURE: **Rwy 14**, climb heading 142° to 1600 before turning right. **Rwy 32**, climb heading 322° to 700 before proceeding on course.

NOTE: Rwy 14, vehicles on road beginning 11' from DER, 450' right of centerline, up to 15' AGL/54' MSL. Hangers 99' from DER, 521' left of centerline, up to 13' AGL/53' MSL. Trees beginning 102' from DER, 328' left of centerline, up to 27' AGL/71' MSL. Trees beginning 199' from DER, 307' right of centerline, up to 64' AGL/98' MSL. Vehicles on road beginning 364' from DER, left and right of centerline, up to 15' AGL/59' MSL. Trees beginning 618' from DER, 331' left of centerline, up to 32' AGL/71' MSL. Trees beginning 983' from DER, 94' right of centerline, up to 20' AGL/90' MSL. Trees beginning 1251' from DER, 72' left of centerline, up to 60' AGL/94' MSL. Rwy 32, multiple trees beginning 30' from DER, 142' right of centerline, up to 59' AGL/100' MSL. Multiple trees beginning 41' from DER, 200' left of centerline, up to 74' AGL/118' MSL. Pole 68' from DER, 107' right of centerline, 26' AGL/70' MSL. Multiple buildings and poles beginning 103' from DER, 235' right of centerline, up to 34' AGL/78' MSL. Vehicles on road 513' from DER, left and right of centerline, 15' AGL/59' MSL, Multiple poles and trees beginning 605' from DER, left and right of centerline up to 84'

#### HOUSTON, TX (CON'T)

HOUSTON EXECUTIVE (TME)
TAKEOFF MINIMUMS AND (OBSTACLE)
DEPARTURE PROCEDURES
ORIG 07242 (FAA)

DEPARTURE PROCEDURE: Rwy 36, Climb heading 355° to 700 before turning east.

NOTE: Rwy 36, power poles from left to right beginning 703' from DER, 623' left to 685' right of centerline, up to 32' AGL/196' MSL.

#### HOUSTON-SOUTHWEST (AXH) TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 5 08157 (FAA) DEPARTURE PROCÉDURE: Rwy 9, climb heading 089° to 2000 before turning left. Rwy 27, climb heading 269° to 2200 before turning right. NOTE: Rwy 9, multiple hangars beginning 239' from DER, 360' right of centerline, up to 42' AGL/106' MSL. Multiple trees beginning 501' from DER, 355' right of centerline, up to 43' AGL/111' MSL. Multiple hangars beginning 119' from DER, 498' left of centerline, up to 41' AGL/105' MSL. Pole 332' from DER, 299' left of centerline, 43' AGL/97' MSL. Antenna 1172' from DER, 658' left of centerline, 51' AGL/115' MSL. Multiple trees beginning 558' from DER, 68' left of centerline, up to 58' AGL/122' MSL. Rwy 27, multiple trees beginning 1050' from DER, 40' left of centerline, up to 71' AGL/140' MSL. Vehicle and road 99' from DER, 291' right of centerline, 15' AGL/83' MSL. Multiple trees beginning 873' from DER, 514' right of centerline, up to 59' AGL/130' MSL. Multiple transmission poles beginning 1304' from DER, 131' right of centerline, up to 41' AGL/110' MSL.

# LONE STAR EXECUTIVE (CXO) TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES AMDT 3 10266 (FAA)

NOTE: Rwy 1, trees beginning 194' from DER, 130' right of centerline, up to 100' AGL/374' MSL. Trees beginning 817' from DER, 15' left of centerline, up to 100' AGL/359' MSL. Rwy 14, trees and obstruction light on DME beginning 399' from DER, 80' right of centerline, up to 100' AGL/329' MSL. Trees beginning 640' from DER, 408' left of centerline, up to 100' AGL/329' MSL. Rwy 19, trees beginning 68' from DER, 64' right of centerline, up to 100' AGL/344' MSL. Trees beginning 1' from DER, 159' left of centerline, up to 100' AGL/339' MSL. Rwy 32, trees beginning 1785' from DER, 973' right of centerline, up to 100' AGL/339' MSL. Trees and vehicles on road beginning 603' from DER, 458' left of centerline, up to 100' AGL/354' MSL.

# SUGAR LAND RGNL (SGR) TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 7A 12264 (FAA)

DEPARTURE PROCEDURE: **Rwy 17**, climb heading 170° to 1500 before turning eastbound. **Rwy 35**, climb heading 350° to 1100 before turning southbound.

NOTE: Rwy 17, multiple poles beginning 436' from DER, 172' right of centerline, up to 44' AGL/124' MSL. Railroad 110' from DER, 10' left of centerline, 23' AGL/104' MSL. Multiple poles beginning 135' from DER, 270' left of centerline, up to 44' AGL/111' MSL. Building 1036' from DER, 743' right of centerline, 26' AGL/102' MSL. Rwy 35, vehicle and road 65' from DER, 2' right of centerline, 15' AGL/96' MSL. Multiple trees beginning 37' from DER, 275' right of centerline, up to 81' AGL/164' MSL. DME antenna 380' from DER, 253' right of centerline, 24' AGL/100' MSL. Multiple trees beginning 83' from DER, 26' left of centerline, up to 81' AGL/155' MSL.

# WEST HOUSTON (IWS) TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES AMDT 4 12264 (FAA)

NOTE: Rwy 15, road and vehicle beginning 74' from DER, 60' left of centerline, up to 15' AGL/123' MSL. Road and vehicle beginning 342' from DER, 6' right of centerline, up 15' AGL/123' MSL. Building 177' from DER, 398' left of centerline, 18' AGL/126' MSL. Light pole 942' from DER, 453' right of centerline, 39' AGL/145' MSL. Trees beginning 307' from DER, 26 left of centerline, up to 58' AGL/165' MSL. Trees beginning 130' from DER, 117' right of centerline, up to 100' AGL/208' MSL. Rwy 33, trees beginning 168' from DER, 9' left of centerline, up to 70' AGL/179' MSL. Trees beginning 66' from DER, 3' right of centerline, up to 75' AGL/184' MSL.

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HOUSTON, TX (CON'T)

WILLIAM P. HOBBY (HOU)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 6A 15064 (FAA)

TAKEOFF MINIMÙMS: **Rwy 4**, 300-1 or std. w/ min. climb of 270' per NM to 300. **Rwy 17**, 300-1. **Rwy 22**, std. w/ min. climb of 290' per NM to 1500.

DEPARTURE PROCEDURE: Rwy 17, climb heading 176° to 700 before turning westbound. Rwys 30L, 30R, climb heading 311° to 800 before turning westbound.

NOTE: Rwy 4, pole 4403' from DER, 1609' right of centerline, 121' AGL/166' MSL. Light on building 1562' from DER, 859' right of centerline, 59' AGL/103' MSL. Building 3990' from DER, 1223' right of centerline, 139' AGL/174' MSL. Light on flagpole 4618' from DER, 768' right of centerline, 117' AGL/161' MSL. Rwy 12L, antenna on hanger 1548' from DER, 424' left of centerline, 45' AGL/85' MSL. Rwy 12R, vehicle and road 514' from DER, 543' right of centerline, 17' AGL/55' MSL. Tree 1217' from DER, 756' right of centerline, 43' AGL/89' MSL. Fence 85' from DER, 492' left of centerline, 4' AGL/45' MSL. Vehicle and road 176' from DER, 497' left of centerline, 17 AGL/55' MSL. Pole 1011' from DER, 696' left of centerline, 33' AGL/73' MSL. Tree 1256' from DER, 783' left of centerline, 38' AGL/78' MSL. Rwy 17, multiple poles beginning 606' from DER, 393' right of centerline, up to 79' AGL/124' MSL. Crane 1795' from DER, 689' right of centerline, 100' AGL/150' MSL. Antenna on building 620' from DER, 312' left of centerline, 27' AGL/72' MSL. Multiple trees beginning 721' from DER, 260' left of centerline, up to 71 AGL/116' MSL. Radar reflector 1214' from DER, 258' left of centerline, 32' AGL/77' MSL. Rwy 22, pole 727' from DER, 626' right of centerline, 28' AGL/77' MSL. Tree 1310' from DER, 679' right of centerline, 27 AGL/76' MSL. Antenna on light pole 1805' from DER, 968' right of centerline, 60' AGL/109' MSL. Rwy 30L, antenna on building 547' from DER, 274' right of centerline, 23' AGL/69' MSL. Multiple poles beginning 341' from DER, 501' left of centerline, up to 39' AGL/84' MSL. Multiple trees beginning 1392' from DER, 466' left of centerline, up to 78' AGL/118' MSL Rwy 30R, pole 1096' from DER, 785' right of centerline, 29' AGL/75' MSL. Antenna on building 500' from DER, 525' left of centerline, 33' AGL/69' MSL. Rwy 35, antenna on light pole 738' from DER, 519' right of centerline, 40' AGL/86' MSL. Light pole 1119' from DER, 353' right of centerline, 31' AGL/77' MSL. Antenna on building 66' from DER, 471' left of centerline, 33' AGL/69' MSL

#### **HUNTSVILLE, TX**

HUNTSVILLE MUNI (UTS)
TAKEOFF MINIMUMS AND (OBSTACLE)
DEPARTURE PROCEDURES
DEPARTURE PROCEDURE: Rwy 18, climb runway
heading to 700 before turning.

#### JACKSONVILLE, TX

CHEROKEE COUNTY (JSO)

TAKEOFF MINIMUMS AND (OBSTACLE)
DEPARTURE PROCEDURES

ORIG 06047 (FAA)

DEPARTURÈ PRÓCEDURE: **Rwy 14**, climb via heading 135° to 1200 before proceeding on course.

#### JASPER, TX

JASPER COUNTY-BELL FIELD (JAS) TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES ORIG 09239 (FAA)

NOTE: Rwy 18, trees beginning 2081' from DER, 118' left of centerline, up to 100' AGL/327' MSL. Trees beginning 690' from DER, 87' right of centerline, up to 100' AGL/329' MSL. Rwy 36, hangar 320' from DER, 504' left of centerline, 27' AGL/236' MSL. Trees beginning 534' from DER, 139' left of centerline, up to 100' AGL/329' MSL. Pole 1968' from DER, 409' left of centerline, 33' AGL/262' MSL. Bush 94' from DER, 476' right of centerline, 8' AGL/217' MSL. Trees beginning 514' from DER, 6' right of centerline, up to 100' AGL/354' MSL. Hangar 1176' from DER, 675' right of centerline, 30' AGL/249' MSL. Tower 1246' from DER, 611' right of centerline, 40' AGL/258' MSL.

#### KOUNTZE/SILSBEE, TX

HAWTHORNE FIELD (45R)
TAKEOFF MINIMUMS AND (OBSTACLE)
DEPARTURE PROCEDURES
ORIG 08045 (FAA)

NOTE: Rwy 13, Terrain 3' from DER, 81' right of centerline, 0' AGL/69' MSL. Trees beginning 64' from DER, 277' right of centerline, up to 50' AGL/119' MSL. Tree 111' from DER, 516' left of centerline, 50' AGL/124' MSL. Terrain 172' from DER, 119' left of centerline, 0' AGL/74' MSL. Rwy 31, Terrain 109' from DER, 134' left of centerline, 0' AGL/74' MSL. Tree 536' from DER, 457' right of centerline, 50' AGL/114' MSL.

#### LA GRANGE, TX

FAYETTE RGNL AIR CENTER (3T5) TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES ORIG 08157 (FAA)

NOTE: Rwy 16, tree 140' from DER, 276' right of centerline, 100' AGL/432' MSL. Tree 612' from DER, 551' left of centerline, 100' AGL/422' MSL. Road with vehicle 942' from DER, 667' left of centerline, 15' AGL/350' MSL.

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LA PORTE, TX

LA PORTE MUNI (T41)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 6 14149 (FAA)

DEPARTURE PROCÉDURE: Rwy 5, climb heading 046° to 500 before proceeding on course. Rwy 12, climb heading 121° to 500 before turning right. Rwy 30, climb heading 301° to 700 before turning right. NOTE: Rwy 5, trees beginning 334' from DER, left and right of centerline, up to 67' AGL/91' MSL. Poles beginning 973' from DER, 387' left of centerline, up to 40' AGL/64' MSL. Buildings beginning 319' from DER, left and right of centerline, up to 30' AGL/54' MSL Stack 2.3 NM from DER, 3296' left of centerline, 300' AGL/334' MSL. Rwy 12, poles beginning 127' from DER, left and right of centerline, up to 54' AGL/74' MSL. Trees beginning 183' from DER, 446' right of centerline, up to 40' AGL/60' MSL. Building 675' from DER, 411' right of centerline, up to 32' AGL/55' MSL. Trees beginning 888' from DER, 113' right of centerline, up to 43' AGL/63' MSL. Rwy 23, buildings beginning 30' from DER, 242' left of centerline, up to 30' AGL/54' MSL. Buildings beginning 231' from DER, 134' right of centerline, up to 30' AGL/54' MSL. Trees beginning 243' from DER, 494' right of centerline, up to 67' AGL/91' MSL. Poles beginning 363' from DER, left and right of centerline, up to 40' AGL/64' MSL. Vehicle on road beginning 493' from DER, 562' left of centerline, up to 15' AGL/39' MSL. Trees beginning 573' from DER, 292' left of centerline, up to 67' AGL/91' MSL. Trees beginning 1123' from DER, 69' right of centerline, up to 67' AGL/91' MSL. Rwy 30, trees beginning 44' from DER, 331' right of centerline, up to 51' AGL/71' MSL. Pole 114' from DER, 500' left of centerline, 37' AGL/60' MSL. Buildings beginning 334' from DER, 355' left of centerline, up to 25' AGL/50' MSL. Trees beginning 367' from DER, 471' left of centerline, up to 37' AGL/57' MSL. Building 669' from DER, 415' right of centerline, 30' AGL/55' MSL. Poles beginning 768' from DER, 427' right of centerline, up to 50' AGL/74' MSL. Trees beginning 1048' from DER, left and right of centerline, up to 67' AGL/87' MSL.

#### LIBERTY, TX

LIBERTY MUNI (T78)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1 14149 (FAA)

DEPARTURE PROCEDURE: **Rwy 16**, climb heading 161° to 1700 before turning left. **Rwy 34**, climb heading 341° to 1000 before turning right.

neading 341" to 1000 before turning right.
NOTE: Rwy 16, hangars beginning 4' from DER, 340' right of centerline, up to 21' AGL/91' MSL. Tree 273' from DER, 401' right of centerline, 28' AGL/96' MSL. Trees beginning 1067' from DER, 122' left of centerline, up to 76' AGL/146' MSL. Trees and poles beginning 1166' from DER, 48' right of centerline, up to 85' AGL/15' MSL. Rwy 34, trees beginning 176' from DER, 262' left of centerline, up to 52' AGL/117' MSL. Poles beginning 427' from DER, 318' right of centerline, up to 40' AGL/105' MSL. Poles beginning 451' from DER, 236' left of centerline, up to 39' AGL/106' MSL. Trees beginning 758' from DER, 101' right of centerline, up to 101' AGL/166' MSL. Trees beginning 1953' from DER, 40' left of centerline, up to 96' AGL/161' MSL.

#### LIVINGSTON, TX

LIVINGSTON MUNI (00R)
TAKEOFF MINIMUMS AND (OBSTACLE)
DEPARTURE PROCEDURES
AMDT 1 11125 (FAA)

DEPARTURE PROCEDURE: **Rwy 12**, climb heading 125° to 1700 before proceeding on course. **Rwy 30**, climb heading 305° to 800 before turning south.

NOTE: Rwy 12, trees beginning at DER, right and left of centerline, up to 100' AGL/249' MSL. Rwy 30, vehicle on road 10' from DER, 492' right of centerline, 10' AGL/159' MSL. Trees beginning 260' from DER, 304' right of centerline, up to 100' AGL/249' MSL.

#### LUFKIN, TX

ANGELINA COUNTY (LFK)
TAKEOFF MINIMUMS AND (OBSTACLE)
DEPARTURE PROCEDURES
ORIG 07074 (FAA)

NOTE: Rwy 7, multiple trees and terrain beginning 75' from DER, 39' left of centerline, up to 85' AGL/381' MSL. Multiple trees beginning 148' from DER, 334' right of centerline, up to 75' AGL/371' MSL. Rwy 15, multiple trees beginning 261' from DER, 142' right of centerline, up to 53' AGL/327' MSL. Multiple trees and terrain beginning 21' from DER, 146' left of centerline, up to 53' AGL/327' MSL. Rwy 25, multiple trees beginning 1767' from DER, 283' right of centerline, up to 78' AGL/362' MSL. Multiple trees beginning 1366' from DER, 145' left of centerline, up to 69' AGL/353' MSL. Rwy 33, multiple trees and pole beginning 289' from DER, 247' right of centerline, up to 71' AGL/360' MSL. Multiple trees and road beginning 574' from DER, 4' left of centerline, up to 74' AGL/363' MSL.

#### MADISONVILLE, TX

MADISONVILLE MUNI (51R)
TAKEOFF MINIMUMS AND (OBSTACLE)
DEPARTURE PROCEDURES
ORIG 12152 (FAA)

NOTE: Rwy 18, multiple trees and power poles beginning at DER, 179 right of centerline, up to 50' AGL/310' MSL. Multiple trees and power poles beginning at DER, 200' left of centerline, up to 50' AGL/309' MSL. Rwy 36, multiple trees and power poles beginning 99' from DER, 50' left of centerline, up to 50' AGL/341' MSL. Multiple trees beginning 50' from DER, 75' right of centerline, up to 50' AGL/346' MSL.

#### MARLIN, TX

MARLIN (T15)

TAKEOFF MINIMUMS AND (OBSTACLE)
DEPARTURE PROCEDURES

ORIG 13010 (FAA)

NOTE: Rwy 17, power lines beginning 411' from DER, left and right of centerline, up to 125' AGL/524' MSL. Building 7' from DER, 155' left of centerline, 30' AGL/439' MSL. Trees beginning 656' from DER, left and right of centerline, up to 50' AGL/449' MSL. Building 309' from DER, 100' left of centerline, 30' AGL/439' MSL. Vehicles in parking lot 364' from DER, on centerline, up to 15' AGL/415' MSL. Rwy 35, trees 225' from DER, 232' right of centerline, up to 50' AGL/469' MSL. Trees 181' from DER, 240' left of centerline, up to 50' AGL/459' MSL. Trees beginning 708' from DER, left and right of centerline, up to 50' AGL/469' MSL. Vehicles 68' from DER, 347' right of centerline, up to 50' AGL/469' MSL. Vehicles 68' from DER, 347' right of centerline, up to 515' AGL/424' MSL.

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#### MEXIA, TX

MEXIA-LIMESTONE CO (LXY) TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG 11125 (FAA)

TAKEOFF MINIMUMS: Rwy 36, 300-21/4 or std. w/min. climb of 212' per NM to 1000, or alternatively, with standard takeoff minimums and a normal 200' per NM climb gradient, takeoff must occur no later than 1600' prior to DER.

NOTE: Rwy 18, vehicles on road beginning 202' from DER, 400' left of centerline, up to 15' AGL/554' MSL. Tree 419' from DER, 292' right of centerline, up to 80' AGL/619' MSL. Rwy 36, trees beginning 179' from DER, 382' right of centerline, up to 80' AGL/619' MSL. Trees beginning 391' from DER, 315' left of centerline, up to 80' AGL/629' MSL.

#### NACOGDOCHES, TX

A L MANGHAM JR RGNL (OCH) TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 2 12152 (FAA)

DEPARTURE PROCEDURE: Rwy 36, climb heading 359° to 1000 before turning right.

NOTE: Rwy 18, trees 47' from DER, 503' left of centerline, 67' AGL/397' MSL. Trees 1227' from DER, 580' left of centerline, 52' AGL/382' MSL. Trees 2234' from DER, 939' right of centerline, 71' AGL/431' MSL. Rwy 36, trees 252' from DER, 485' left of centerline, 81' AGL/401' MSL. Trees 792' from DER, 513' left of centerline, 87' AGL/447' MSL. Trees beginning 1957' from DER, 23' left of centerline, up to 70' AGL/470' MSL. Trees 207' from DER, 492' right of centerline, 58' AGL/388' MSL. Multiple OL's and trees beginning 661' from DER, 2' right of centerline, up to 74' AGL/434' MSL. Multiple trees beginning 2290' from DER, 316' right of centerline, up to 87' AGL/487' MSL.

#### NAVASOTA, TX

NAVASOTA MUNI (60R) TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES ORIG 84033 (FAA)

DEPARTURE PROCEDURE: Rwy 35, climb runway heading to 2100 before turning eastbound.

#### ORANGE, TX

ORANGE COUNTY (ORG) TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES ORIG 09295 (FAA)

TAKEOFF MINIMUMS: Rwy 4, 400-11/4 or std. w/ min. climb of 425' per NM to 500. Rwys 13, 31, NA-Environmental.

NOTE: Rwy 4, trees beginning 893' from DER, 513' right of centerline, up to 30' AGL/87' MSL. Trees beginning 1856' from DER, 550 left of centerline, up to 30' AGL/66' MSL. Transmission poles beginning 2518' from DER, left and right of centerline, up to 73' AGL/83' MSL. Tower 6401' from DER, 1900' left of centerline, 283' AGL/298' MSL. Rwy 22, trees beginning at DER, left and right of centerline, up to 30' AGL/39' MSL.

#### PALACIOS, TX

PALACIOS MUNI (PSX) TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES ORIG-A 16147 (FAA)

DEPARTURE PROCEDURE: Rwy 8, climbing right turn heading 125° to 1800 before proceeding on course. Rwy 13, climb heading 132° to 1100 before turning left. Rwy 36, climb heading 357° to 1100 before turning right. NOTE: Rwy 31, bush 20' from DER, 296' right of centerline, 6' AGL/16' MSL.

#### PALESTINE, TX

PALESTINE MUNI (PSN)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES AMDT 2 04274 (FAA)

TAKEOFF MINIMUMS: Rwv 9. std. with a min. climb of 313' per NM to 1200, or 600-3 for climb in visual

DEPARTURE PROCEDURE: Rwy 9, for climb in visual conditions: cross Palestine Municipal Airport at or above 1200.

NOTE: Rwy 9, multiple trees and terrain beginning 1.5 NM from DER, 2404' left of centerline, up to 100' AGL/739' MSL. Terrain 1.6 NM from DER, 1545' right of centerline, 601' MSL.

#### VICTORIA, TX

VICTORIA RGNL (VCT) TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1 12152 (FAA)

TAKEOFF MINIMUMS: Rwys 6, 24, NA - environmental. NOTE: Rwy 13R, poles, railroad, and tower beginning 796' from DER, 61' right of centerline, up to 59 AGL/161' MSL. Hopper and tank beginning 1124' from DER, 407' left of centerline, up to 32' AGL/134' MSL. Rwy 18, DME on building 588' from DER, 414' left centerline, 15' AGL/118' MSL. Rwy 36, bush 104' from DER, 165' right of centerline, 10' AGL/116' MSL.

#### WHARTON,TX

WHARTON RGNL (ARM) TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES ORIG 09239 (FAA)

NOTE: Rwy 32, vehicle on roads beginning 26' from DER, 312' right of centerline, up to 17' AGL/113' MSL. Buildings beginning 40' from DER, 338' right of centerline, up to 26' AGL/125' MSL. Poles beginning 140' from DER, 467' right of centerline, up to 43' AGL/142' MSL. Tree 828' from DER, 509' right of centerline, 28' AGL/127' MSL. Fence 24' from DER, 288' left of centerline, 4' AGL/103' MSL. Tree 1147' from DER, 425' left of centerline, 41' AGL/140' MSL.

16147



